Web Soil Survey 1.1 - How to Use It

Web Soil Survey -- purpose

Web application that provides producers, agencies, TSPs, and others electronic access to relevant soil and related information needed to make use & management decisions about the land

Web Soil Survey -- purpose

- Provides alternative to traditional hardcopy publication
- Provides means for quicker delivery of information
 - reduce publication backlog
- Provides electronic access to full soil survey report content
- Provides access to most current data

Web Soil Survey -- purpose

- Allows customer to get just information they want/select
 - Map units for their geographic area of interest (AOI)
 - Information relevant to customer's landuse e.g. rangeland concerns

WSS Products

- Soil Map on Ortho backdrop for the AOI from SSURGO (where available)
- Soil Data Mart Tables by AOI
- Download SSURGO data

WSS Products

- Standard Soil Survey Manuscripts (PDF) for selected survey areas
 - Text, tables, and maps by Soil Survey Area (SSA)
 - As this is data from a snapshot in time, it may not be identical to official data presented via interactive parts of WSS

WSS Products

- Customized Soil Resource Reports (PDF)
 - By AOI
 - Content specifically chosen by user
 - Thematic Maps (with tables and text)
 - Different format from Soil Survey Manuscripts

Web Soil Survey -- functionality

- Customer can select geographic area of interest (AOI)
- View soil and thematic maps online
- Interact with official soil data on Soil Data Mart

Web Soil Survey -- functionality

- Access data across SSA boundaries
- Provide link to related NRCS information and resource data
- Download data
- Print on demand

Provide Easy Access to Relevant Information

- Cross-Platform Browser Support
 - Compatible with newer versions of IE, Netscape, Mozilla, Mozilla Firefox and AOL Explorer

Target Audience

- General public
- Engineers, scientists, and other specialists in local governmental agencies
- NRCS (and other governmental agencies) field employees or technical service providers

WSS 1.1 Functionality

- Define an area of interest
 - Map, county or SSA choice list, address, latitude and longitude, PLSS, or hydrologic unit
- For the area of interest:
 - Get status about what datasets are available
- Display a soil map
- Display thematic maps from Web SDV
- View PDF manuscript w/selected map sheets
- Limited print capability

WSS 1.1 Functionality

Access ecological sites descriptions applicable to AOI

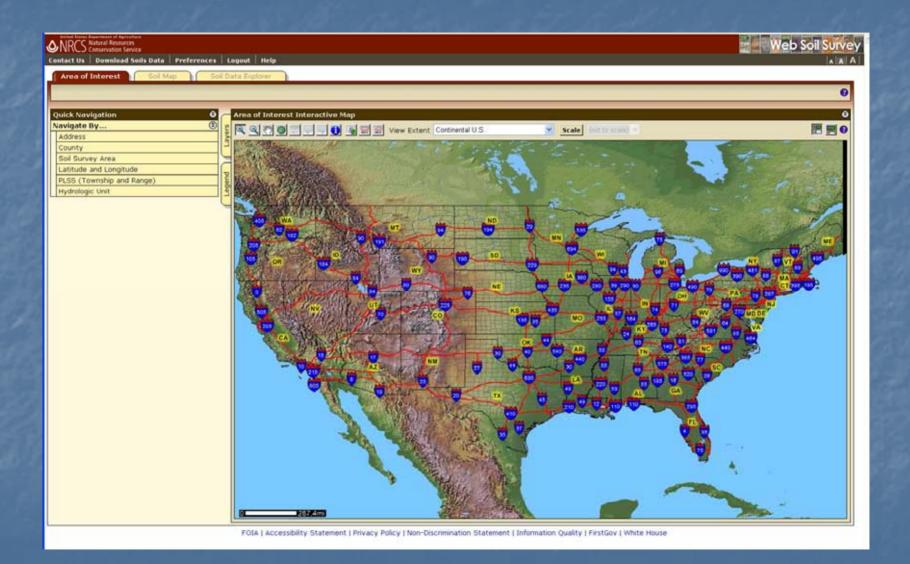
Pathway through WSS

- Define area of interest you <u>must</u> specifically set the AOI before you can view any maps or reports
- View Soil Map if available for AOI
- Browse/Explore soil and related information
 - Generate thematic maps
 - Access Soil Data Mart data tables
- Print/download the selected map or report

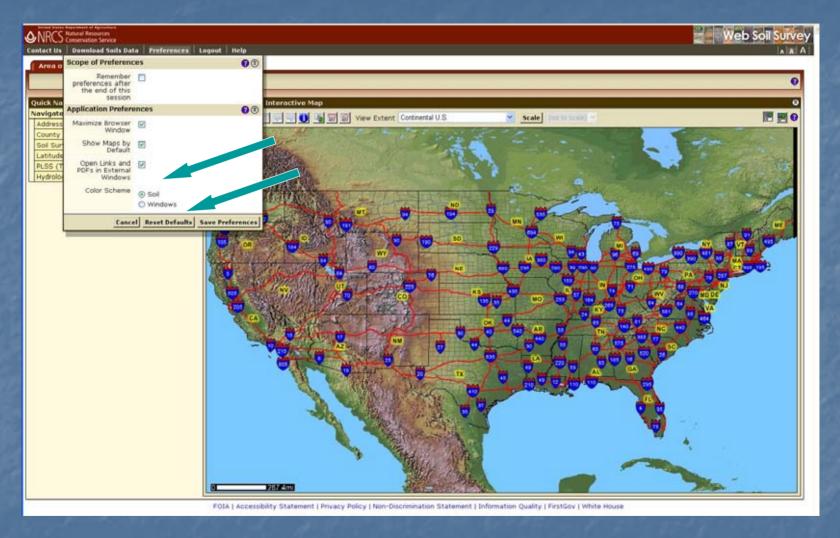
WSS 1.1 Opening Screen



Start WSS

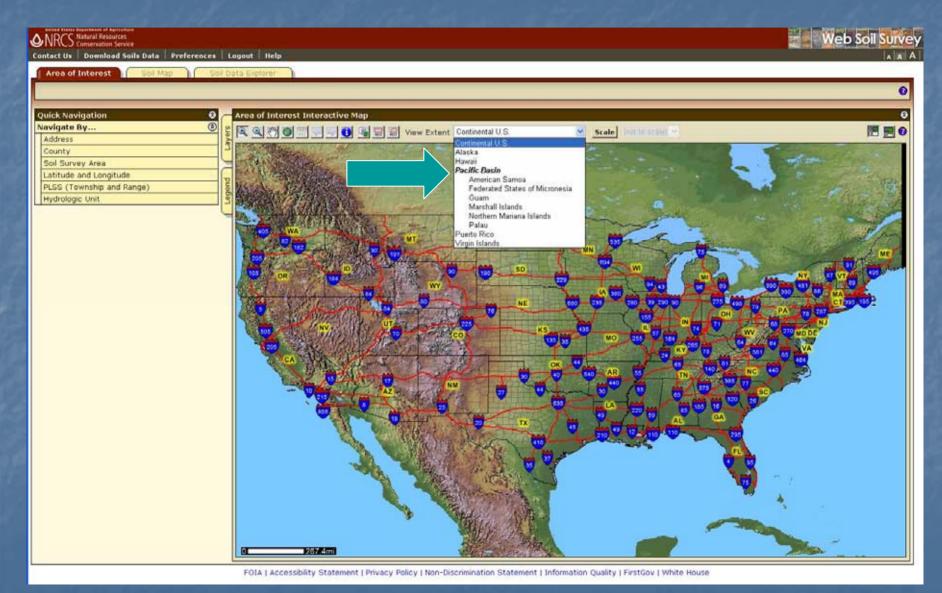


New Look and Feel

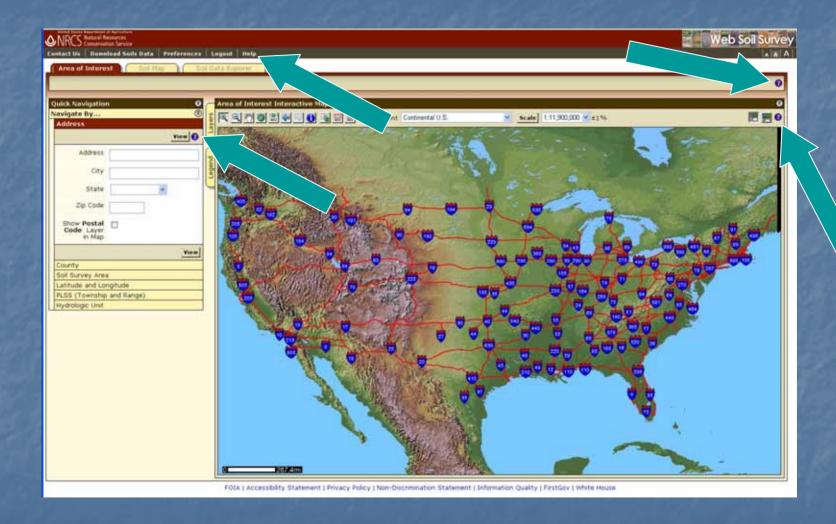


- Choose "Soils" or "Windows" color schemes.
- View PDFs and links in the same browser window as WSS.

Select Other Geographic Areas

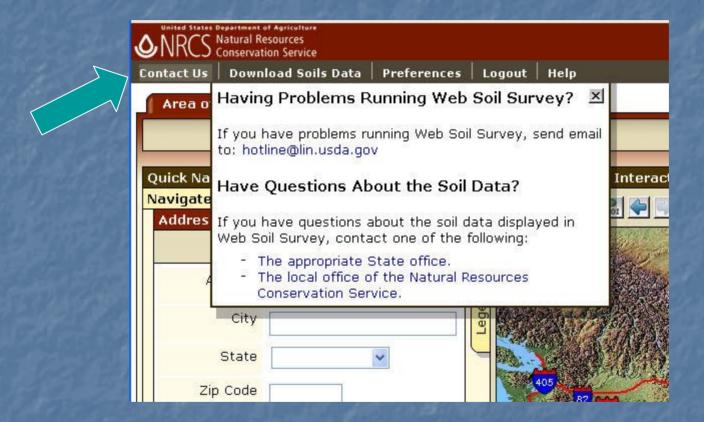


How to Get Online Help



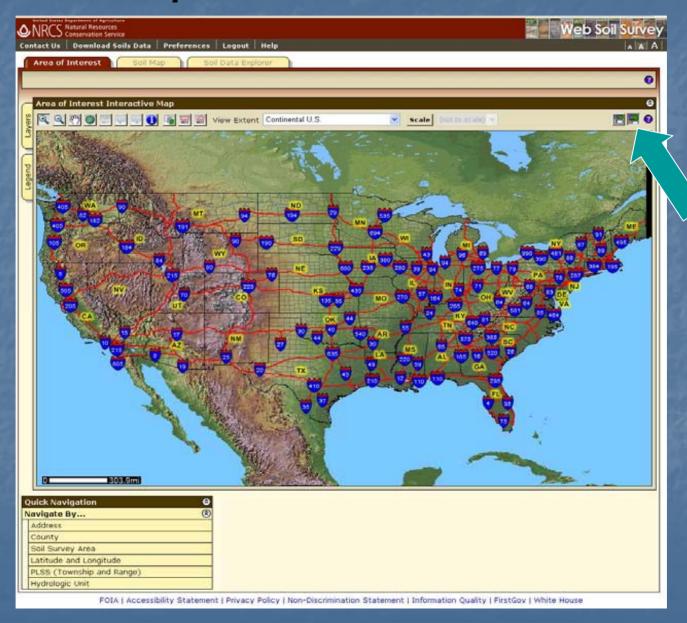
Click on Help or a "?" for online help.

More ways to get Help

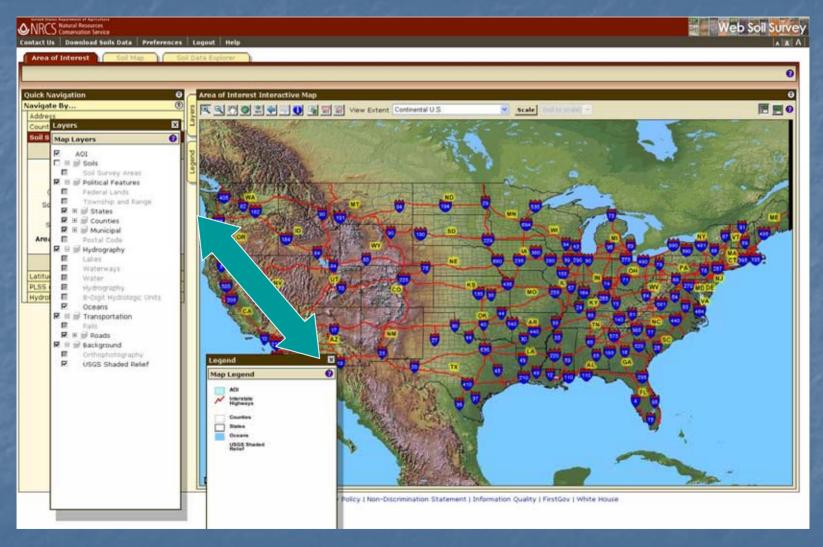


Click on "Contact Us".

View Map at Full Screen Width

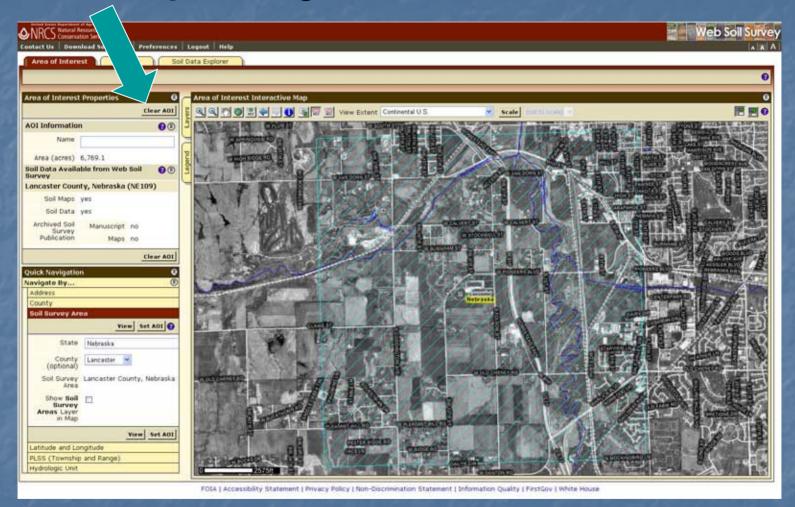


Floating Windows

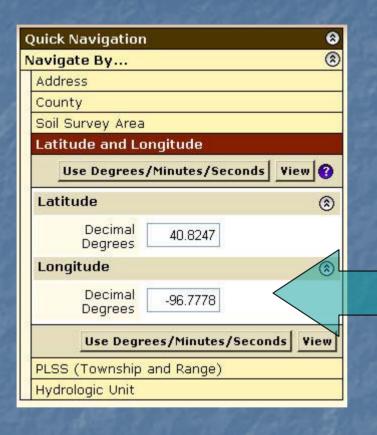


You can move the Legend and Layers windows around wherever you want.

Explicitly clear the AOI



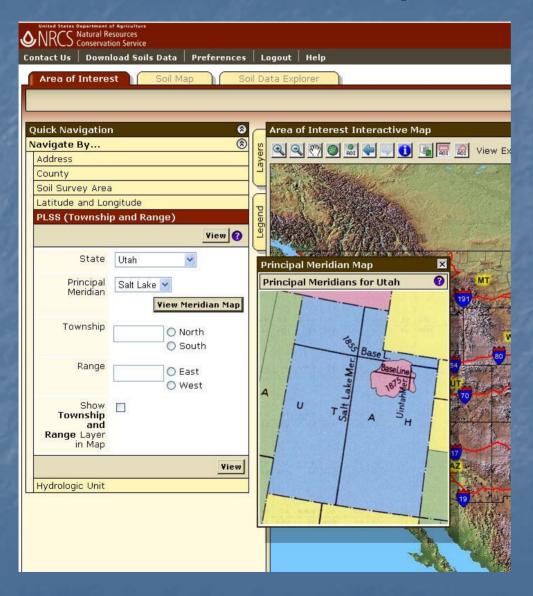
Latitude and Longitude



Zoom to an area using latitude and longitude coordinates in the Quick Navigation panel.

For an area in within the continental U.S., enter a negative decimal degree in longitude.

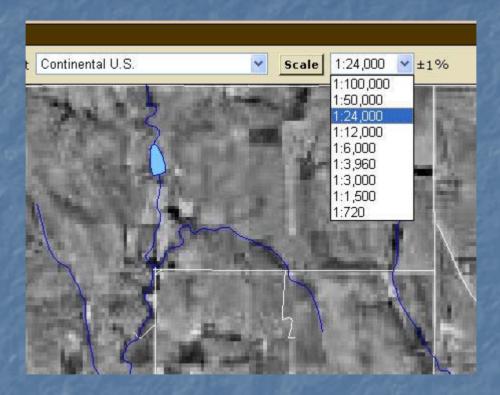
PLSS (Township and Range)



Zoom to an area using PLSS (Township and Range) in the Quick Navigation Panel, and view the Township and Range data layer.

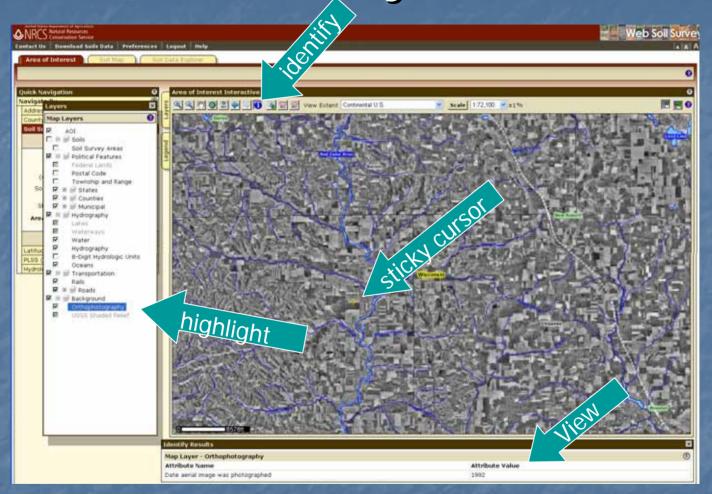
View Meridian Map, where applicable.

Map Scale



Use the map scale feature to see the scale you've zoomed to and to change to a different map scale.

Identify Tool



- •Highlight the layer, then click the identify tool. See the Attribute Value for information on the layer.
- •Sticky cursor identifies the point you clicked with the Identify and Data Available map tool.

Area of Interest Features

- Navigate to an AOI using basic map navigation themes
 - Transportation
 - Ortho photo
 - Hydrography
 - Political features
- Use Zoom in/out tools available

Area of Interest Features, cont.

- Define an AOI by drawing a polygon on a map – expanding rectangle or digitize multi-sided polygon
- Select or navigate to an AOI using "Quick Navigation":
 - Soil Survey Area
 - County
 - Address

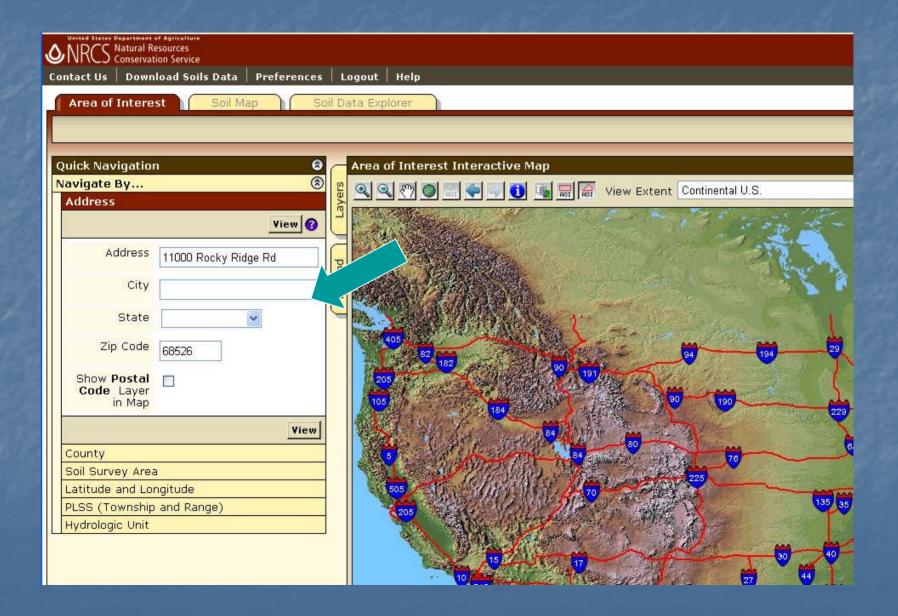
Area of Interest Features, cont.

- Display datasets available for AOI
 - Soil report data from Soil Data Mart
 - Soil map data from Soil Data Mart
 - Soil Survey Publication traditional soil survey report
 - PDF manuscript
 - PDF maps
- Name your AOI, if desired

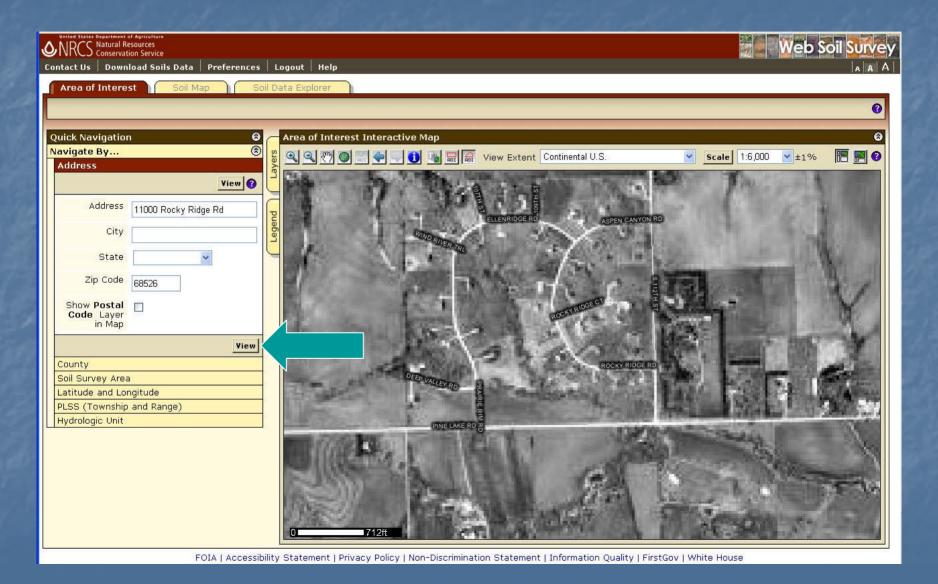
Define AOI



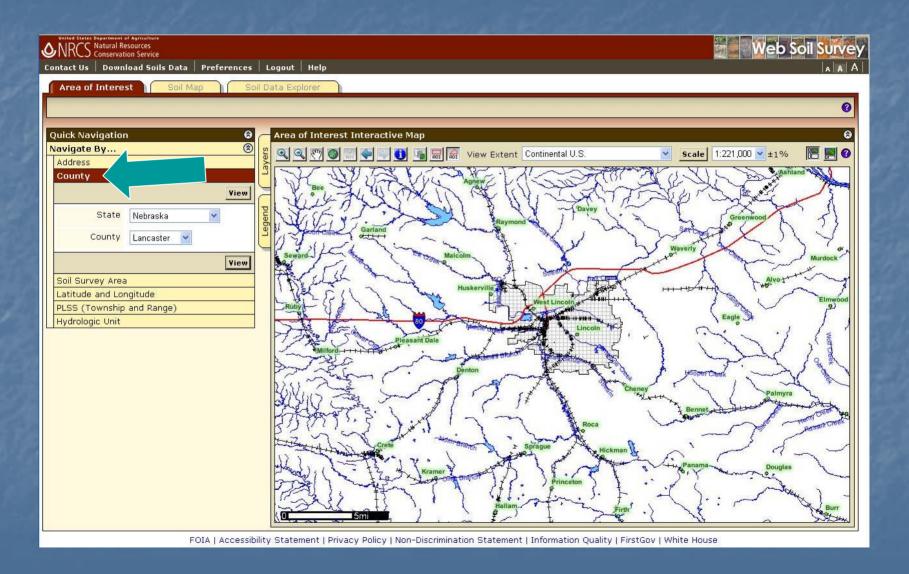
Navigate to AOI by Address



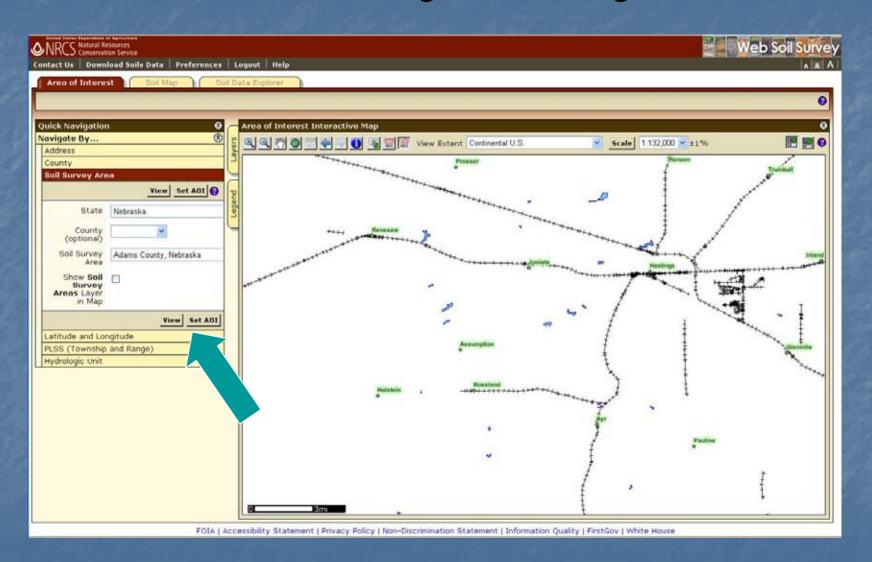
View by Address



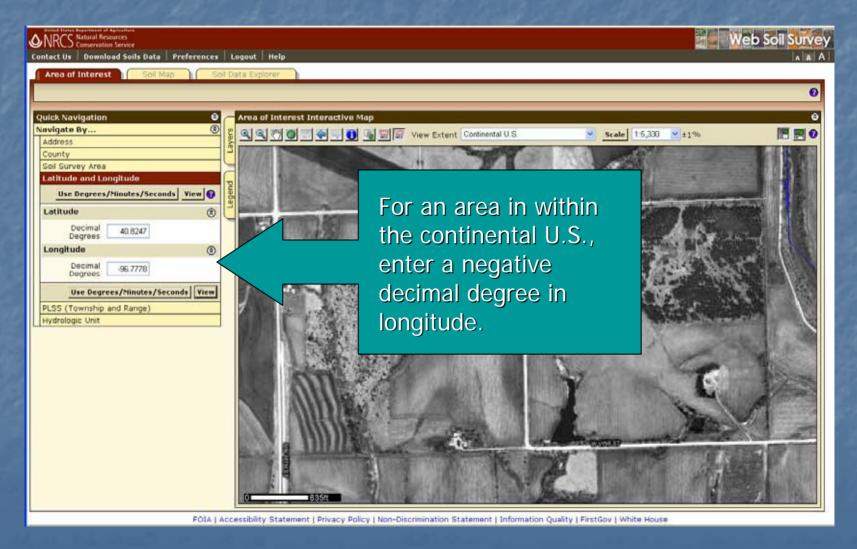
Navigate to AOI by County



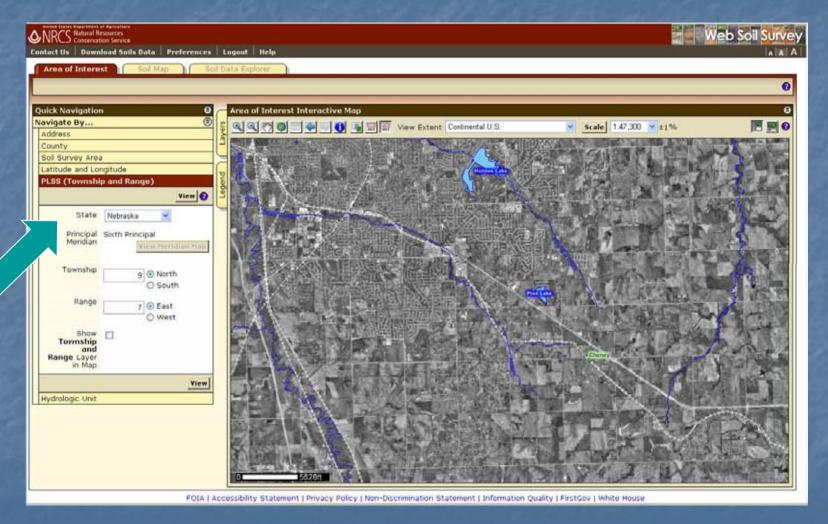
Select AOI by Survey Area



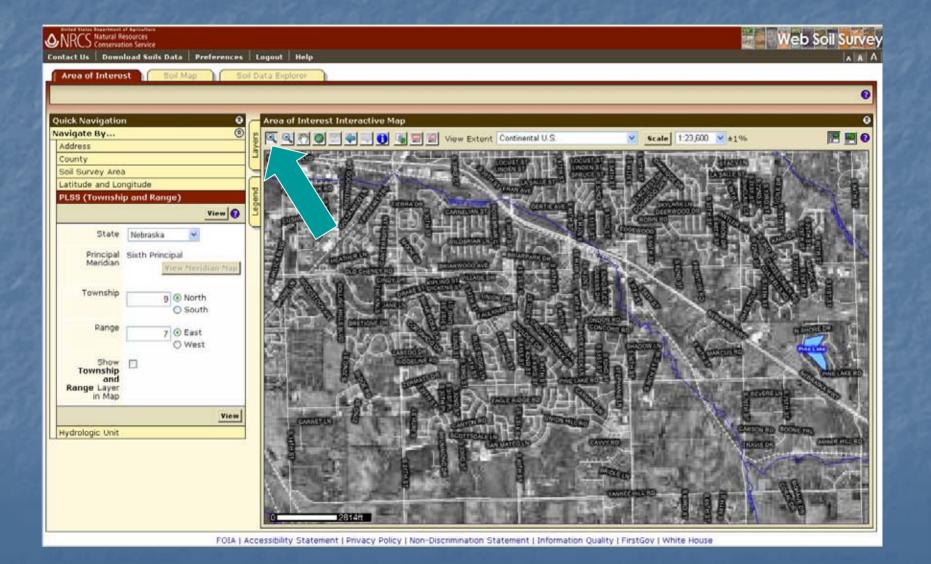
Select AOI by Latitude and Longitude



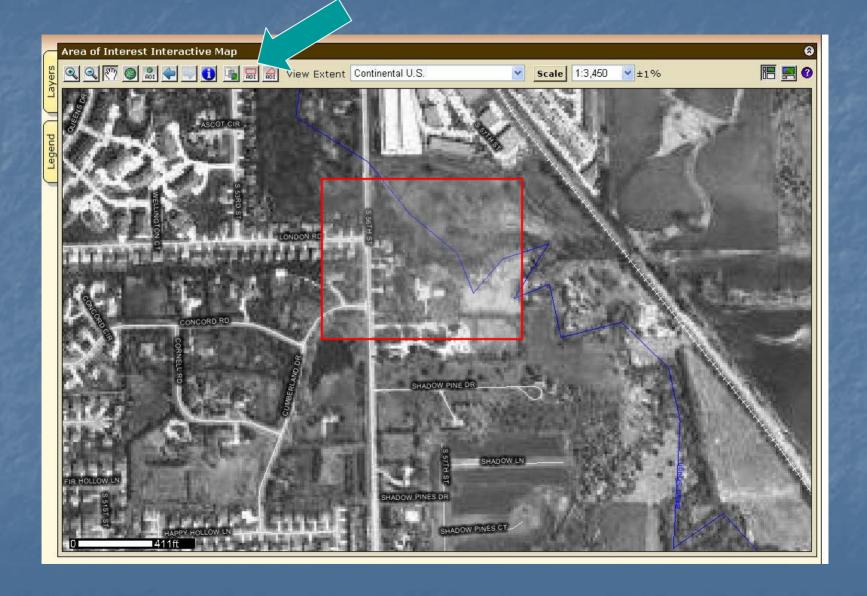
Set AOI by PLSS (Township and Range)



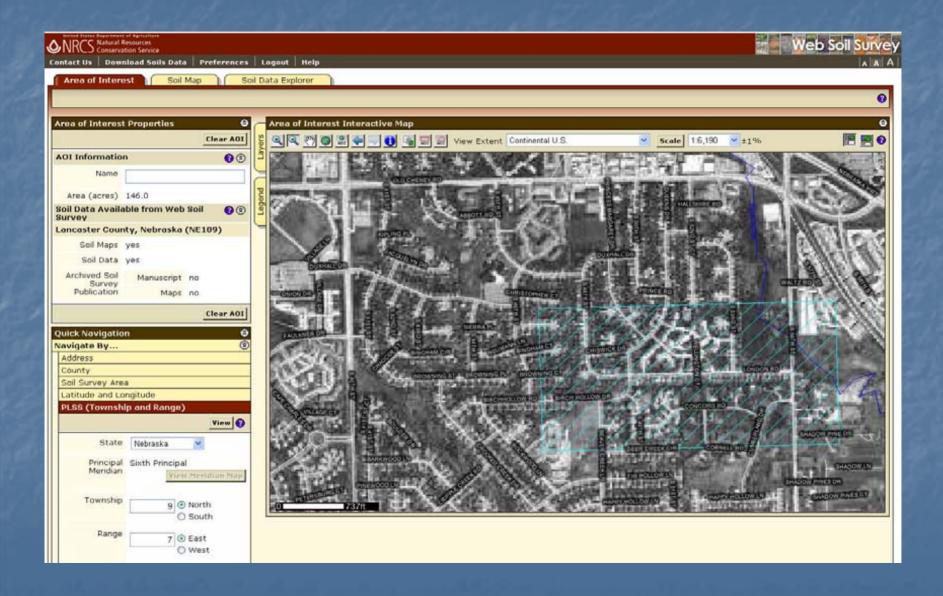
Zoom In



Set AOI – draw rectangle



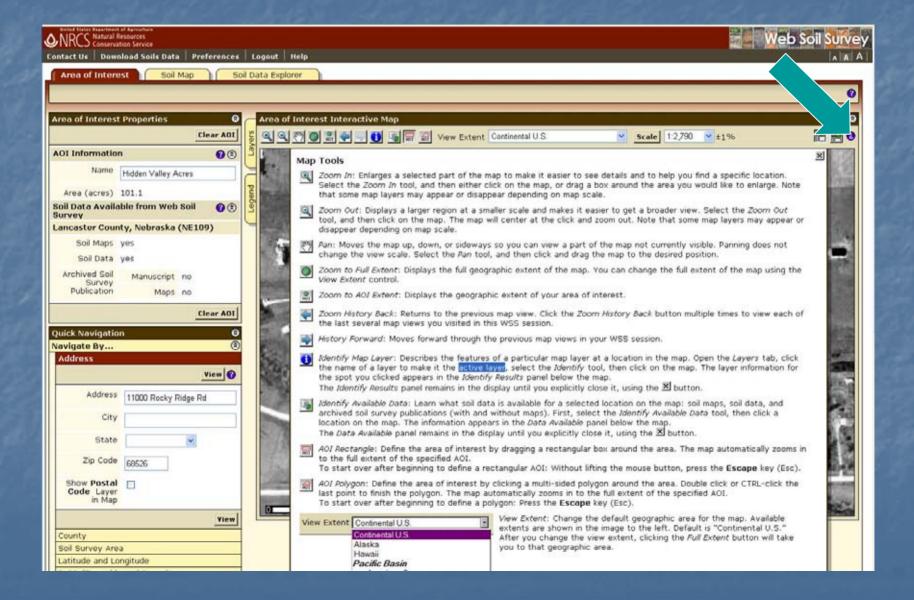
Selected AOI



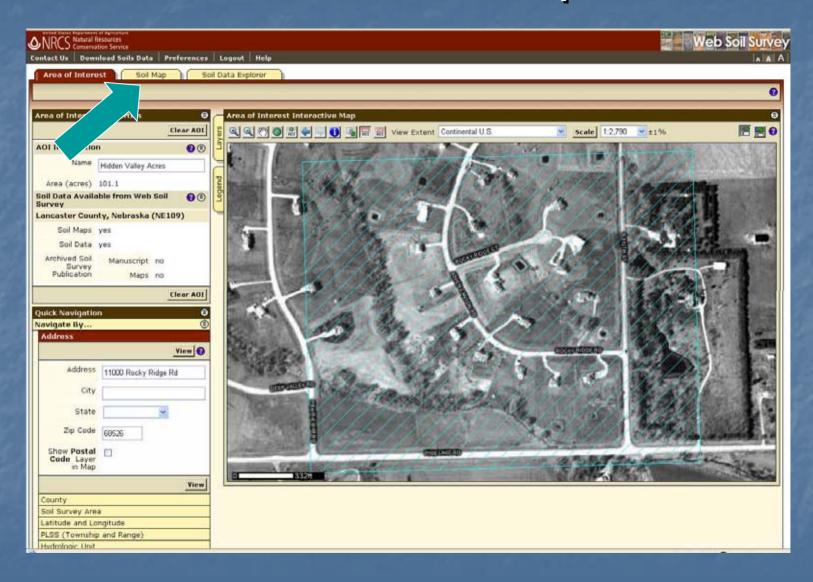
Set AOI

- Remember you must specifically set the AOI before proceeding to view any maps or data.
 - Use one of the AOI buttons on toolbar
 - Select the area by choosing a Soil Survey Area, then clicking the Set AOI button.
 - This option will be available for other selection criteria in the future.

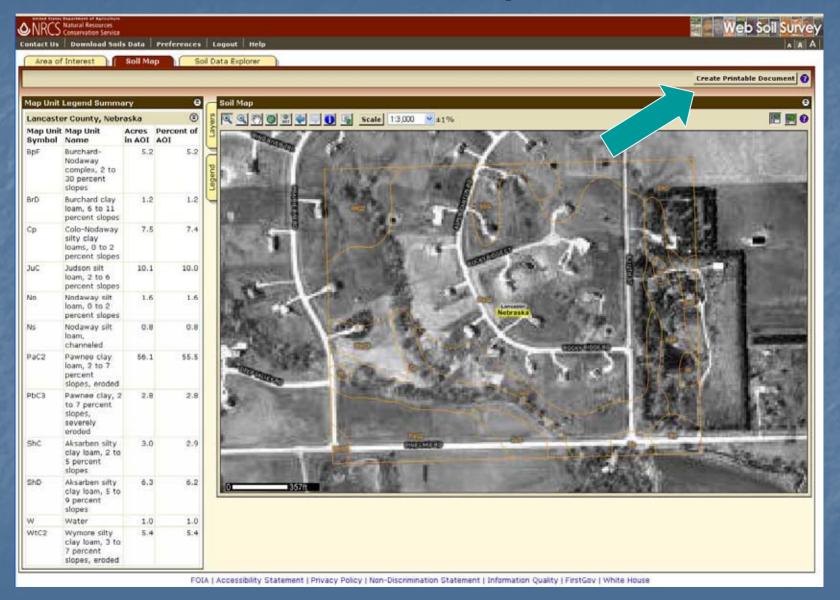
AOI Interactive Map - Help



View Soil Map

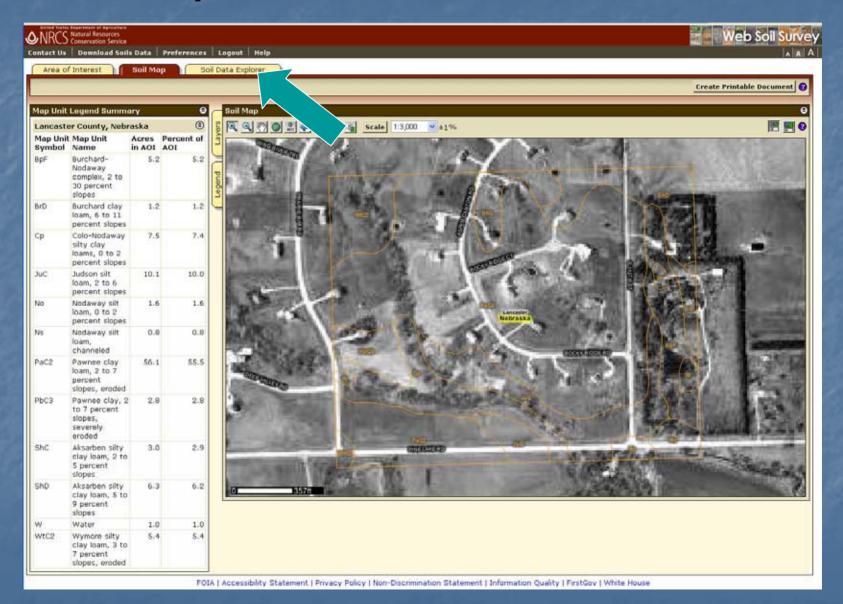


Soil Map



Click on "Create Printable Document" to view, save or print data as PDF

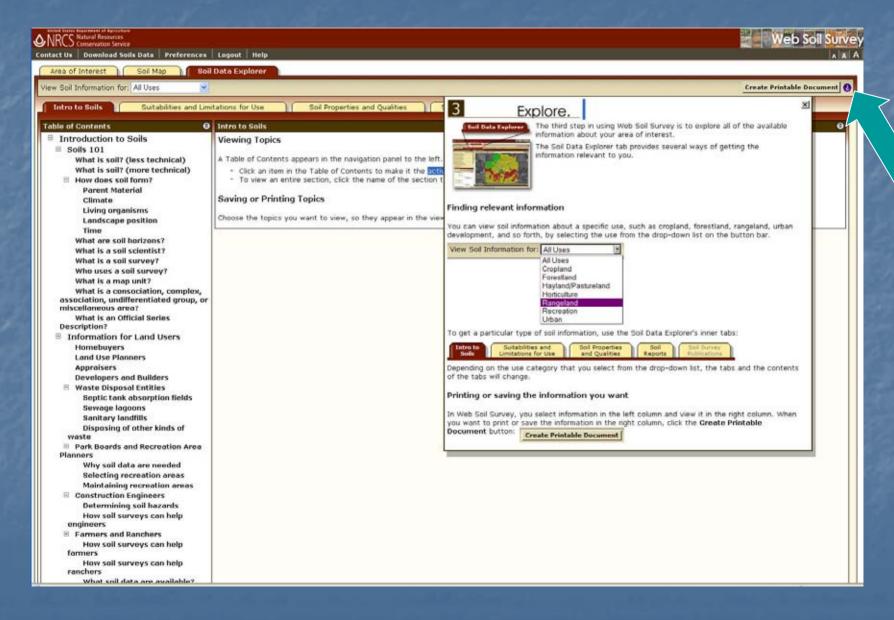
Explore Soil Information



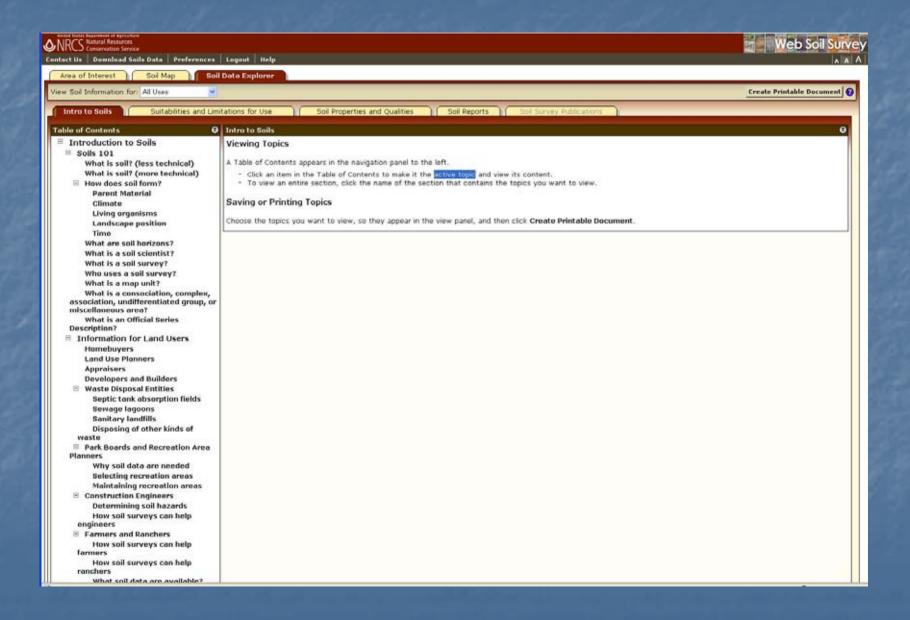
Soil Data Explorer Features

- Filter the soil information by land use category
- Learn the terminology and concepts of soils and specific land uses
- View interpretive soil data and soil properties in the form of thematic maps, tables, and text description
- Access ecological site information
- Print maps and reports

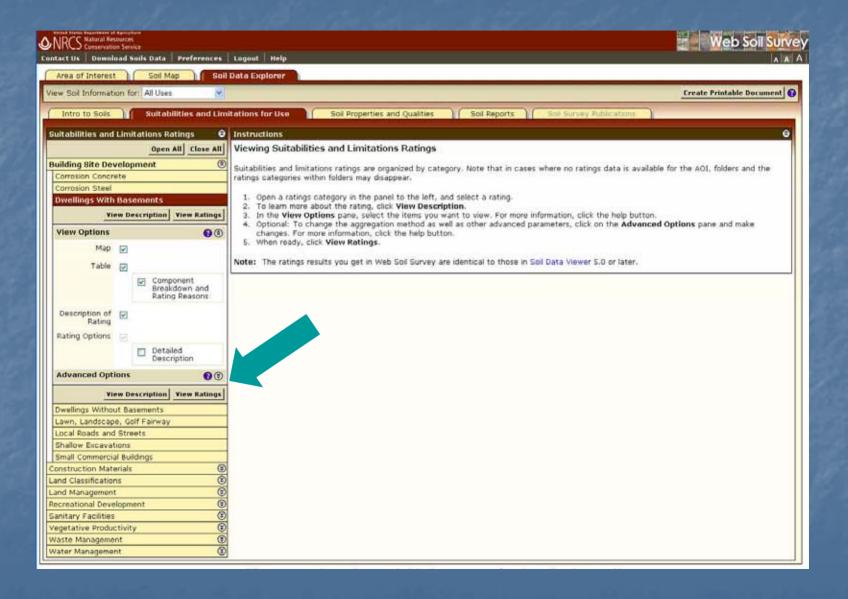
Soil Data Explorer - Help



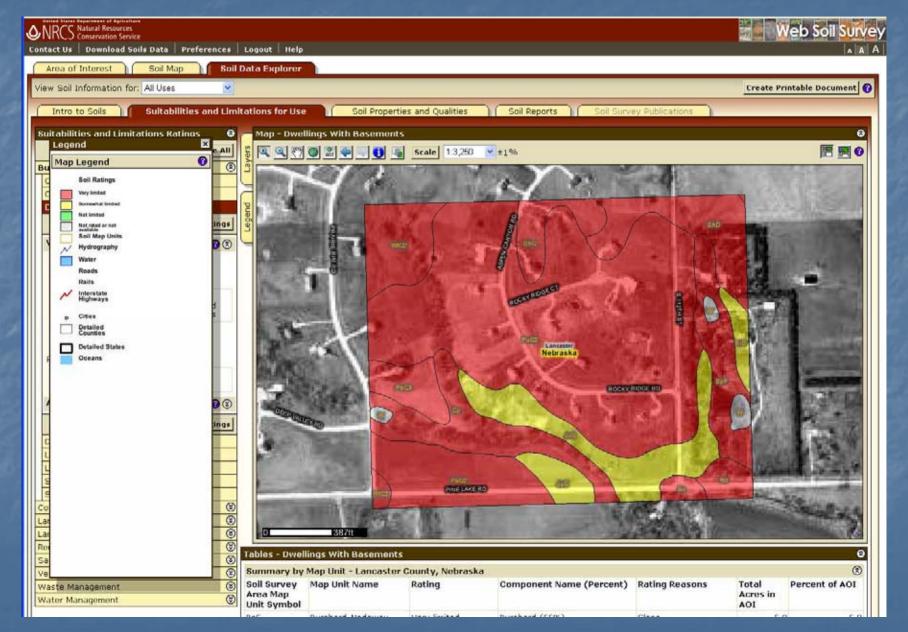
Soil Data Explorer - Intro



Suitabilities and Limitations



Display Interpretive Map



Summary Report

	ngs With Basements					0
MANAGEMENT OF THE PARTY OF THE	tap Unit - Lancaster Cou	NAME OF TAXABLE PARTY.	10 1000 1000 1000	11/2/11/21		
Soil Survey Area Map Unit Symbol	Map Unit Name	Rating	Component Name (Percent)	Rating Reasons	In AOI	Percent of AOI
8pF	Burchard-Nodaway complex, 2 to 30 percent slopes	Very limited	Burchard (55%)	Slope	5.2	5.
			Nodaway, frequently flooded (45%)	Flooding Depth to saturated zone		
BrD	Burchard clay loam, 6 to 11 percent slopes	Somewhat limited	Burchard (100%)	Slope	1.2	1.
Ср	Colo-Nodaway sity clay loams, 0 to 2 percent slapes	Very limited	Colo, occasionally flooded (60%)	Flooding Depth to saturated zone Shrink-swell	7.5	7.
			Nodaway, frequently flooded (40%)	Flooding Depth to saturated zone		
Juc	Judson silt loam, 2 to 6 percent slopes	Somewhat limited	Judson (99%)	Shrink-swell	10.1	10.
No	Nodaway silt loam, 0 to 2 percent slopes	Very limited	Nodaway, occasionally flooded (95%)	Flooding Depth to saturated zone	1.6	1.0
			Colo, occasionally flooded (5%)	Flooding Depth to saturated zone Shrink-swell		
Ns	Nodaway silt loam, channeled	Very limited	Nodaway, frequently flooded (95%)	Flooding Depth to saturated zone	0.8	0.
			Colo, occasionally flooded (4%)	Flooding Depth to saturated zone Shrink-swell		
PaC2	Pawnee clay loam, 2 to 7 percent slopes, eroded	Very limited	Pawnee (100%)	Depth to saturated zone Shrink-swell	56,1	55.
PbC3	Pawnee clay, 2 to 7 percent slopes, severely	Very limited	Pawnee (100%)	Depth to saturated zone Shrink-swell	2.8	2.
ShC	eroded Aksarben silty clay loam, Very lin 2 to 5 percent slopes		Aksarben (100%)	Shrink-swell	3.0	2.
ShD	Aksarben silty clay loam, 5 to 9 percent slopes	Very limited	Aksarben (100%)	Shrink-swell	6.3	6.1
w	Water	Not rated	Water (100%)		1.0	1.0
WtC2	Wymore silty clay loam, 3 to 7 percent slopes, eroded	Very limited	Wymare (100%)	Depth to saturated zone Shrink-swell	5,4	5.
Summary by F	tating Value					(3
Rating			Total Acres in AOI	Percent of AOI		
Very limited				10.7		87.
Somewhat limited			11.4			11.
Not rated				1.0		1.

Description - Dwellings With Basements

Dwellings are single-family houses of three stories or less. For dwellings with basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of about 7 feet.

The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility is inferred from the Unified classification. The properties that affect the ease and amount of excavation include depth to a water table, ponding, flooding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Interpretation Description and Rating Options

Description - Dwellings With Basements

8

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Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building site development. "Not limited" indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. "Somewhat limited" indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Rating Options - Dwellings With Basements

6

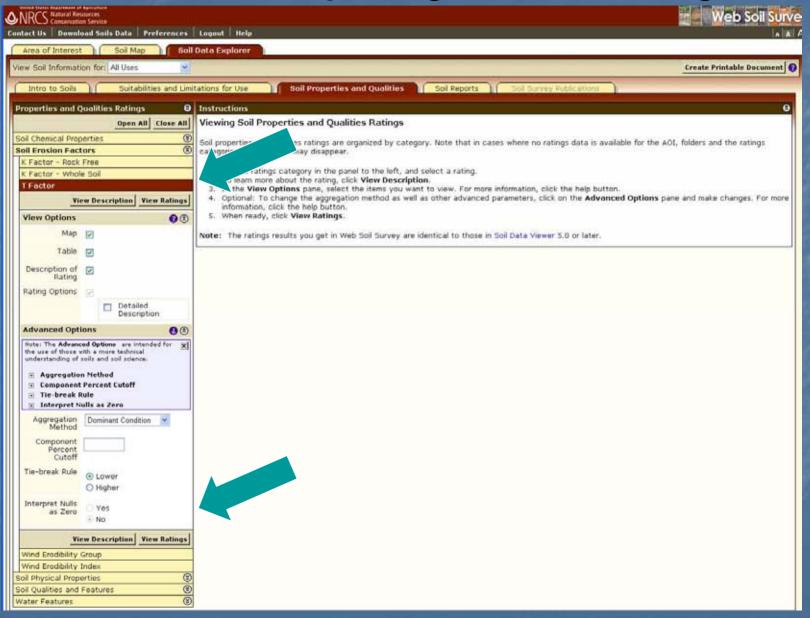
Aggregation Method: Dominant Condition

Component Percent Cutoff: Tie-break Rule: Higher

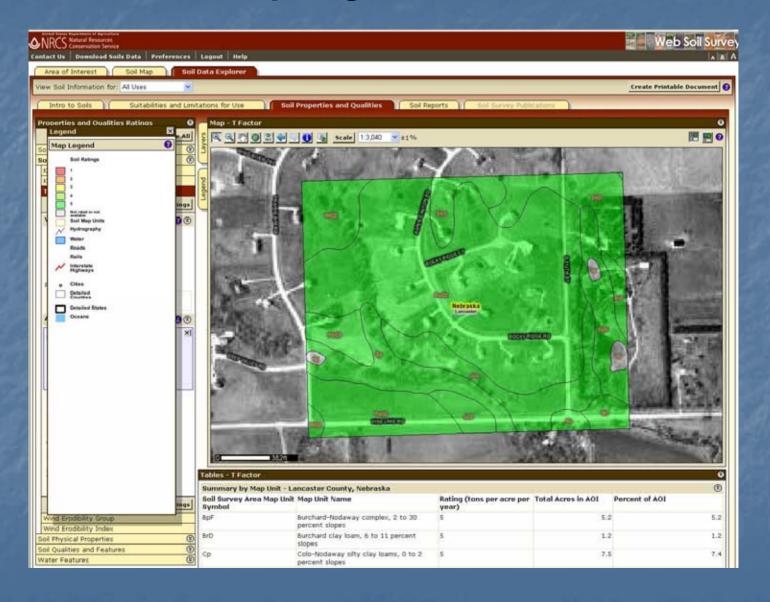
Soil Properties and Qualities



Select Property or Quality



Display Results



Tables - T Factor				8
Summary by Map Unit - L	ancaster County, Nebraska			8
Soil Survey Area Map Unit Symbol	Map Unit Name	Rating (tons per acre per year)	Total Acres in AOI	Percent of AOI
ВрБ	Burchard-Nodaway complex, 2 to 30 percent slopes	5	5.2	5.2
BrD	Burchard clay loam, 6 to 11 percent slopes	5	1.2	1.2
Ср	Colo-Nodaway silty clay loams, 0 to 2 percent slopes	5	7.5	7.4
JuC	Judson silt loam, 2 to 6 percent slopes	5	10,1	10.0
No	Nodaway silt loam, 0 to 2 percent slopes	5	1.6	1.6
Ns	Nodaway silt loam, channeled	5	0.8	0.8
PaC2	Pawnee clay loam, 2 to 7 percent slopes, eroded	5	56.1	55.5
PbC3	Pawnee clay, 2 to 7 percent slopes, severely eroded	5	2.8	2.8
ShC	Aksarben silty clay loam, 2 to 5 percent slopes	5	3.0	2.9
ShD	Aksarben silty clay loam, 5 to 9 percent slopes	5	6.3	6.2
W	Water	Null	1.0	1.0
WtC2	Wymore silty clay loam, 3 to 7 percent slopes, eroded	5	5.4	5.4

Description - T Factor

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

0

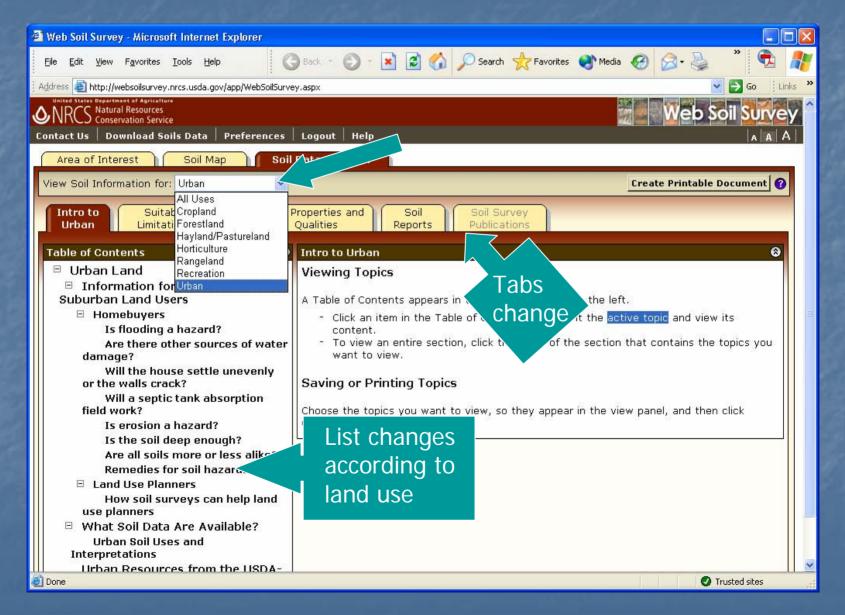
Rating Options - T Factor

T Factor Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: Tie-break Rule: Lower Interpret Nulls as Zero: No

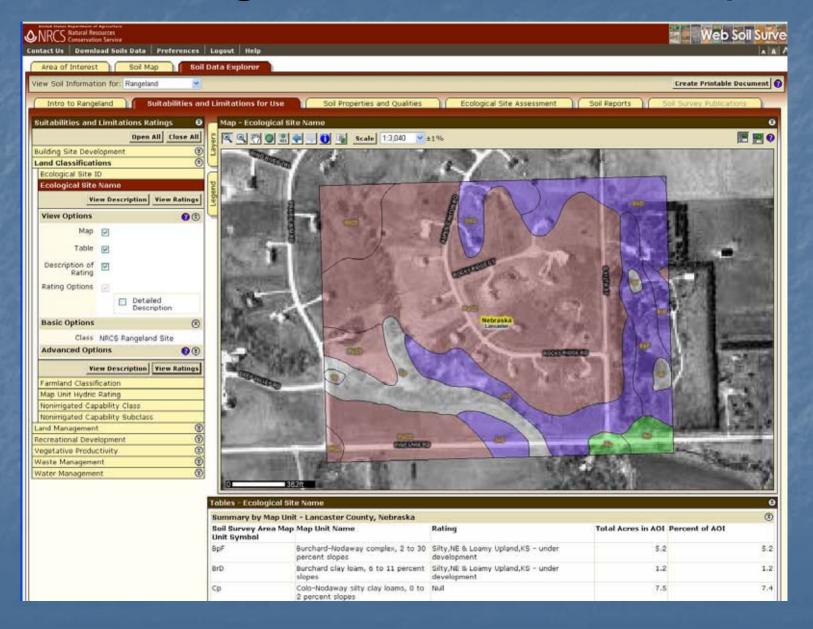
Change Land Uses



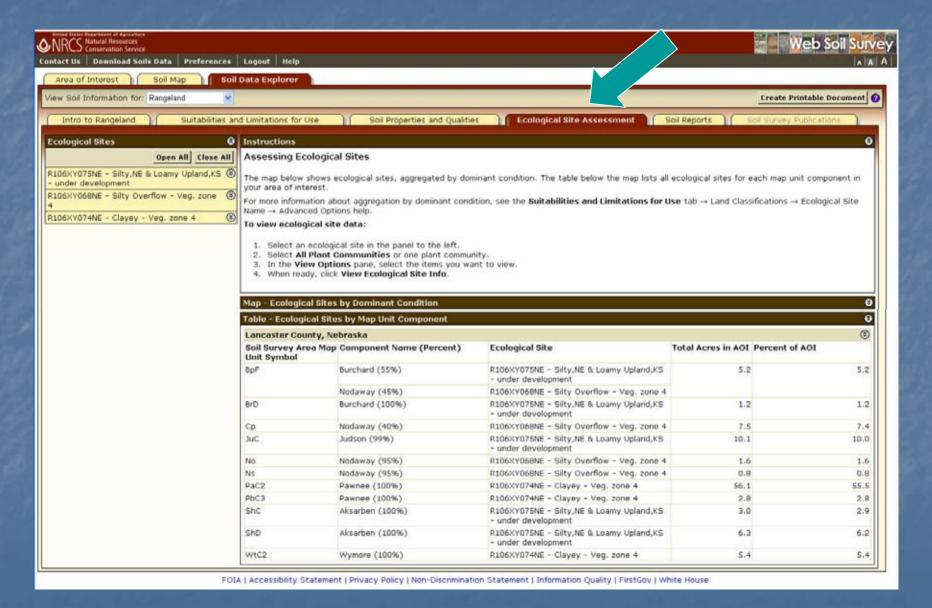
Intro to Rangeland



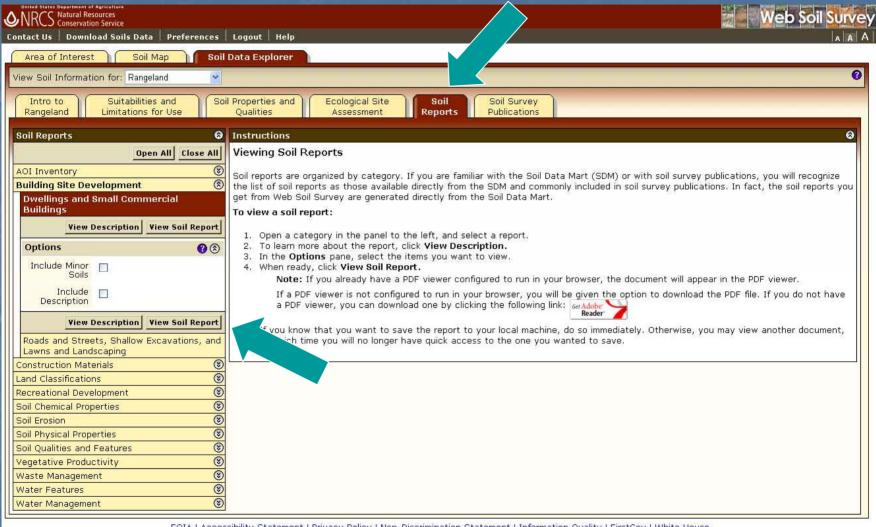
Ecological Site Name Map



Ecological Site Assessment



Soil Data Mart Reports



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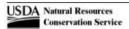
Soil Data Mart Reports

Dwellings and Small Commercial Buildings

Lancaster County, Nebraska

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.0.0. The larger the value, the greater the potential limitation. The table shows only the top five limitations for any given soil. The soil may have additional limitations [

Map symbol	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
and soil name		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BpF:	12.00	775 VI 100 VI		4000 100001		490 Table 2000 100	
Burchard	55	Very limited Slope Shrink-swell	1 0.5	Very limited Slope	1	Very limited Slope Shrink-swell	1 0.5
Nodaway, frequently flooded	45	Very limited Flooding Shrink-swell	1 0.01	Very limited Flooding Depth to saturated zone	1 0.35	Very limited Flooding Shrink-swell	1 0.01
BrD:							
Burchard	100	Somewhat limited Shrink-swell Slope	0.5 0.04	Somewhat limited Slope	0.04	Very limited Slope Shrink-swell	1 0.5
Cp:							
Colo, occasionally flooded	60	Very limited Flooding Depth to saturated zone Shrink-swell	1 1 0.5	Very limited Flooding Depth to saturated zone Shrink-swell	1 1 0.5	Very limited Flooding Depth to saturated zone Shrink-swell	1 1 0.5
Nodaway, frequently flooded	40	Very limited Flooding	1	Very limited Flooding Depth to saturated zone	1 0.35	Very limited Flooding	1
JuC:							
Judson	99	Somewhat limited Shrink-swell	0.01	Somewhat limited Shrink-swell	0.5	Somewhat limited Shrink-swell	0.01
No:							
Nodaway, occasionally flooded	95	Very limited		Very limited		Very limited	
		Flooding	1	Flooding Depth to saturated zone	1 0.35	Flooding	1
Ns:							
Nodaway, frequently flooded	95	Very limited		Very limited		Very limited	
		Flooding Shrink-swell	1 0.01	Flooding Depth to saturated zone	1 0.35	Flooding Shrink-swell	1 0.01



View Soil Survey Publications

